

# PATENT COOPERATION TREATY

TRANSLATION

PCT

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

<div style="border: 1px solid black; width: 100%; height: 100%;"></div>		Date of mailing (day/month/year)	<b>See form PCT/ISA/210</b>
Applicant's or agent's file reference <b>0000055339</b>		<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No. <b>PCT/EP2005/001231</b>	International filing date (day/month/year) <b>08.02.2005</b>	Priority date (day/month/year) <b>13.02.2004</b>	
International Patent Classification (IPC) or both national classification and IPC <b>C08F8/00, C08G81/02</b>			
Applicant <b>BASF AKTIENGESELLSCHAFT</b>			

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application  |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2005/001231

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language  
\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2005/001231

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-27	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	see below, point V.2.	NO
Industrial applicability (IA)	Claims	1-27	YES
	Claims		NO

2. Citations and explanations:

Reference is made to the following documents:

D1: WO 01/30882 A (AVECIA LIMITED; THETFORD, DEAN;  
BARNETT, STUART) 3 May 2001 (2001-05-03)

D2: US 2004/007153 A1 (THETFORD DEAN ET AL)  
15 January 2004 (2004-01-15)

1. Novelty

According to D1 and D2, it is likewise possible to obtain aqueous polymer dispersions (acrylate latex dispersions) which, as associative thickener, comprise amphiphilic polymers, with polyisobutene blocks and with hydrophilic units.

However, novelty is acknowledged in the current independent claims on account of multiple selection (polyisobutene from a list, content of terminally arranged double bonds)

2. Inventive step

As stated under point 1, the idea of using copolymers containing polyisobutene blocks alongside hydrophilic fractions (e.g. polyether blocks) for stabilizing aqueous latex dispersions is not novel (D1, D2).

The applicant should provide convincing evidence that the increased content of terminally arranged double bonds in the polyisobutene block (and the increased functionalization resulting therefrom) causes an unexpected technical effect. Since the material known as reactive polyisobutene (with an increased proportion of terminal double bonds) was known (as also was its modification with MAH for purposes of copolymer synthesis), it was obvious to a person skilled in the art that

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2005/001231

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

this material could also be used for the abovementioned purpose; i.e. if the applicant had merely solved the problem of providing further stabilizers for the abovementioned purpose, that would not be inventive.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2005/001231

Box No. VIII      Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

In the light of the description and of the experiments, an essential feature is missing in the independent claims: according to the current wording, the hydrophilic unit (B) can be composed of a single functional group, whereas according to the other parts of the application the inventive properties are achieved only with a block copolymer. The applicant should therefore define the hydrophilic unit (B) likewise as a block.

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 0000055339	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/EP2005/001231	International filing date ( <i>day/month/year</i> ) 08 February 2005 (08.02.2005)	Priority date ( <i>day/month/year</i> ) 13 February 2004 (13.02.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant BASF AKTIENGESELLSCHAFT		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	This REPORT consists of a total of 5 sheets, including this cover sheet.  In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 14 August 2006 (14.08.2006)</p> <p>Authorized officer  <div style="text-align: center;">Ellen Moyse</div></p> <p>e-mail: pt05@wipo.int</p>
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